

**Exhibit C.2**  
**POWDER MILL CREEK SEDIMENT REMOVAL INTERIM ACTION**  
**Washington Hydraulics Project Approval**  
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**Washington Hydraulics Project Approval (RCW 75.20.100; Chapter 220-110 WAC).** This regulation requires WDFW approval for projects that will use, divert, obstruct, or change the natural flow or bed of waters of the state, such as PMC. WDFW typically issues in-stream work windows under the authority of this program. Under MTCA only substantive compliance with this Washington State Construction Projects in Water Act requirement is required.

WDFW provided a written summary of the expected requirements for this IA in a letter dated December 7, 2005 (attached). WDFW required that the technical provisions from WAC 220-110 be followed to protect fish life, and cited specific subsections –120, -130, and –080. WDFW also included several project-specific requirements. The WDFW requirements are reproduced in this subsection (shown in italic type), along with a discussion of how the design meets each requirement.

*WAC 220-110-120 Temporary Bypass Culvert, Flume, or Channel.*

*Temporary bypass culvert, flume, or channel projects shall incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. The following technical provisions shall apply to temporary bypass culvert, flume, or channel projects:*

The reach of creek selected for this IA is not utilized by fish and protection of productive capacity is therefore not necessary.

- (1) *The temporary bypass culvert, flume, or channel shall be in place prior to initiation of other work in the wetted perimeter.*

During the season selected for the work, there is essentially no flow from the upstream end of the project reach. Seepage water will be collected in a sump within the work area.

- (2) *A sandbag revetment or similar device shall be installed at the inlet to divert the entire flow through the culvert, flume, or channel.*

During the season selected for the work, there is essentially no flow from the upstream end of the project reach. Seepage water will be collected in a sump within the work area.

- (3) *A sandbag revetment or similar device shall be installed at the downstream end of the culvert, flume, or channel to prevent backwater from entering the work area.*

No flow is expected within, through, or immediately downstream of the project reach during the season selected for the work. The design requires placement of a sand bag decant weir at the downstream end of the work

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area, to temporarily impound and provide settlement for any unexpected flow.

*(4) The culvert, flume, or channel shall be of sufficient size to pass flows and debris for the duration of the project.*

During the season selected for the work, there is essentially no flow from the upstream end of the project reach. Seepage water will be collected in a sump within the work area.

*(6) Prior to releasing the water flow to the project area, all bank protection or armoring shall be completed.*

The design requires restoration of the stream banks and placement of interim protection prior to the first storm flows.

*(7) Upon completion of the project, all material used in the temporary bypass shall be removed from the site and the site returned to preproject conditions.*

Site restoration is included as a requirement of the design.

*(8) If fish may be adversely impacted as a result of this project, the permittee shall be required to capture and safely move game and food fish and other fish life, (at the discretion of the department), from the job site to the nearest free-flowing water. The permittee may request the department to assist in capturing and safely moving fish life from the job site to free-flowing water, and assistance may be granted if personnel are available.*

No fish are present within the project reach.

*(9) Alteration or disturbance of the banks and bank vegetation shall be limited to that necessary to construct the project. All disturbed areas shall be protected from erosion, within seven days of completion of the project, using vegetation or other means. The banks shall be revegetated within one year with native or other approved woody species. Vegetative cuttings shall be planted at a maximum interval of three feet (on center), and maintained as necessary for three years to ensure eighty percent survival. Where proposed, planting densities and maintenance requirements for rooted stock will be determined on a site-specific basis. The requirement to plant woody vegetation may be waived for areas where the potential for natural revegetation is adequate, or where other engineering or safety factors preclude them.*

Replanting required in the design meets this requirement.

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*WAC 220-110-130 Dredging In Freshwater Areas.*

*Dredging projects shall incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. The following technical provisions shall apply to dredging projects:*

- (1) Dredging shall not be conducted in fish spawning areas unless it is designed to create or improve the access or quality of fish spawning areas.*

The project reach is not utilized by fish. The project will improve sediment quality.

- (4) Dredging shall be conducted with dredge types and methods that cause the least adverse impact to fish and shellfish and their habitat.*

The project reach is not utilized by fish.

- (8) Upon completion of the dredging, the bed shall not contain pits, potholes, or large depressions to avoid stranding of fish.*

The project reach is not utilized by fish. Nevertheless, the design meets this standard.

*WAC 220-110-080 Channel Change/Realignment.*

*Channel changes/realignments are generally discouraged, and shall only be approved where the applicant can demonstrate benefits or lack of adverse impact to fish life. Channel change/realignment projects shall incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. The following technical provisions shall apply to channel change and channel realignment projects:*

- (1) Permanent new channels shall, at a minimum, be similar in length, width, depth, floodplain configuration, and gradient, as the old channel. The new channel shall incorporate fish habitat components, bed materials, meander configuration, and native or other approved vegetation equivalent to or greater than that which previously existed in the old channel.*
- (a) Approved fish habitat components, bed materials and bank protection to prevent erosion shall be in place.*
- (b) Approved fish habitat components shall be installed according to an approved design to withstand the 100-year peak flows.*

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The project reach is not utilized by fish. Nevertheless, the design meets this standard.

*(5) All disturbed areas shall be protected from erosion, within seven days of completion of the project, using vegetation or other means. The banks shall be revegetated within one year with native or other approved woody species. Vegetative cuttings shall be planted at a maximum interval of three feet (on center), and maintained as necessary for three years to ensure eighty percent survival. Where proposed, planting densities and maintenance requirements for rooted stock will be determined on a site-specific basis. The requirement to plant woody vegetation may be waived for areas where the potential for natural revegetation is adequate, or where other engineering or safety factors preclude them.*

Replanting required in the design meets this requirement.

*NOTIFICATION REQUIREMENT: The Area Habitat Biologist listed below shall be contacted by phone or e-mail (holsegh@dfw.wa.gov) within seven days of completion of work to arrange for a compliance inspection.*

This requirement is written in to the Site Management Plan (Section 4.10).

*The dredging shall be conducted in the dry or isolation from the stream flow by the installation of a bypass flume or culvert, or by pumping the stream flow around the work area. Care shall be taken so that the stream below the project area is never dewatered. At least half the flow of the stream shall be maintained in the downstream reach at all times.*

No flow is expected within, through, or immediately downstream of the project reach during the season selected for the work. A small amount of water will be collected during construction, primarily from seepage out of the sediment being removed. Removal of this water is not expected to measurably decrease downstream instream flow.

*Following the dredging of the stream, appropriate fish-mix gravel must be used to line the exposed bottom of the stream channel.*

This requirement is met by the stream restoration design.

*Woody debris shall be placed in a manner which causes the least amount of disturbance to the streambed.*

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This requirement is met by the stream restoration design.

*Woody debris may be placed by hand or by equipment stationed on the bank. All soils disturbed and exposed by equipment shall be given a temporary erosion control treatment (seeding, mulching, etc.) as needed prior to other plantings in the buffer.*

This requirement is met by the stream restoration design.

*The woody debris shall be of fir, cedar, or other approved coniferous species.*

This requirement is met by the stream restoration design.

*At least half of the large woody debris shall be placed so it is within the low flow channel.*

This requirement is met by the stream restoration design.

*If excessive clouding of the water occurs upon reintroduction of the stream flow to the dredged area, the stream flow must be reintroduced in stages. Once the dredged area has filled with water, the stream flow must again be diverted around the work area in order to allow sediments to settle. Once settling has occurred, the stream flow may be returned to its original course.*

The design requires that the sandbag decant weir be left in place until the first flush of stormwater has passed through the project reach, to allow sediments to settle before opening the stream to normal flow.

Establishment of an in-stream work window is not necessary for this IA because no fish are present in the reach selected for action. However, the dry-season time frame chosen for the work corresponds roughly to typical in-stream work windows established for other water bodies.